

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the Application are reproduced below.

1. (Currently Amended) A software system comprising:

a server system comprising an operating system, the operating system operable to support a well-known address, the well-known address operable to receive data, the operating system further operable to provide interprocess communication;

the operating system further operable to support a buffer associated with the well-known address, the buffer operable to store data received by the well-known address;

a plurality of handler processes associated with the server system and available to service pending client requests, the handler processes being operable to access a notification system in parallel, ~~accept~~ to accept pending requests in parallel, and to provide service to client requests, such that at least one request received by the well-known address will result in the notification to a plurality of the handler processes, one of which will service each pending request when the number of handler processes exceeds the number of pending requests, a handler process of the plurality of handler processes operable to:

complete with one or more other handler processes of the plurality of handler processes for the at least one request; and

receive the at least one request independently of an intervening process to dispatch the at least one request;

the operating system further comprising the notification system, the notification system operable to be accessed by the handler processes, the notification system further operable to reflect the existence of data in the buffer when data exists in the buffer and to reflect the non-existence of data in the buffer when the buffer is free of data; and

a spawner process operable to create the handler processes.

2. (Original) The system of Claim 1 wherein the plurality handler processes contain a plurality of threads, wherein each thread is operable to independently handle requests.

3. (Previously Presented) The system of Claim 1 wherein the spawner process is operable to increase or decrease the number of handler processes currently in existence at any time.

4. (Original) The system of Claim 1 wherein the server is composed of a plurality of physical processors, each processor operable to run one or more handler processes or the spawner process.

5. (Currently Amended) A method of operating a parallel client server system comprising:

creating a plurality of handler processes with a spawner process at a server;

initializing a well-known address at the server;

storing at least one request received by the well-known address in a buffer associated with the well-known address at the server;

notifying, in parallel, a plurality of the handler processes that at least one request has arrived, a handler process of the plurality of handler processes operable to compete with one or more other handler processes of the plurality of handler processes for the at least one request; and

accepting each pending request from the buffer, in parallel, with the plurality of handler processes when the number of handler processes exceeds the number of pending requests, each pending request accepted independently of an intervening process to dispatch each pending request.

6. (Original) The method of Claim 5 wherein attempting to accept pending requests from the buffer is also performed by a plurality of threads within the plurality of handler processes.

7. (Original) The method of Claim 5 wherein creating the plurality of handler processes with the spawner process results in the plurality of processes running on a plurality of physical processors.

8. (Previously Presented) The method of Claim 5 and further comprising increasing or decreasing the number of handler processes currently in existence with the spawner process.

9. (Original) The method of Claim 5 wherein the initialization of the well-known address is performed by cooperation between the operating system and the spawner process.

10. (Canceled)

11. (Currently Amended) A system of operating a parallel client server system comprising:

means for creating a plurality of handler processes with a spawner process at a server;

means for initializing a well-known address at the server;

means for storing at least one request received by the well-known address in a buffer associated with the well-known address at the server;

means for notifying, in parallel, a plurality of the handler processes that at least one request has arrived, a handler process of the plurality of handler processes operable to compete with one or more other handler processes of the plurality of handler processes for the at least one request; and

means for accepting each pending request from the buffer, in parallel, with the plurality of handler processes when the number of handler processes exceeds the number of pending requests, each pending request accepted independently of an intervening process to dispatch each pending request.

12. (Currently Amended) A method of operating a parallel client server system comprising the steps of:

providing, at a server, at least one available handler process, the available handler process comprising a handler process which is not presently processing a previously accepted pending request;

providing a well-known address at the server;

storing, at the server, at least one pending request received by the well-known address in a buffer associated with the well-known address;

notifying, substantially in parallel, the available handler processes that at least one pending request is in the buffer, an available handler process of the available handler processes operable to compete with one or more other available handler processes for the at least one request;

accepting substantially all pending requests from the buffer, substantially in parallel, with the available handler processes, when a number of pending requests is less than or equal to a number of available handler processes, each pending request accepted independently of an intervening process to dispatch each pending request; and

servicing accepted pending requests.

13. (Original) The method of Claim 12 and further comprising processing error conditions with those available handler processes that did not successfully accept a pending request when the number of available handler processes is greater than the number of pending requests.

14. (Original) The method of Claim 12, wherein providing the available handler processes comprises creating a plurality of the handler processes with a spawner process and wherein the available handler processes comprise a subset of the handler processes.

15. (Original) The method of Claim 14, wherein notifying comprises updating a flag and wherein the flag is accessible by substantially all the handler processes at substantially any time.

16. (Original) The method of Claim 12, wherein providing the well-known address comprises initializing the well-known address.

17. (Currently Amended) A system for a parallel client server system comprising: software encoded on a computer readable medium, the software operable to:

- provide, at a server, at least one available handler process, the available handler process comprising a handler process which is not presently processing a previously accepted pending request;
- provide a well-known address at the server;
- store, at the server, at least one pending request received by the well-known address in a buffer associated with the well-known address;
- notify, substantially in parallel, the available handler processes that at least one pending request is in the buffer, an available handler process of the available handler processes operable to compete with one or more other available handler processes for the at least one request;
- accept substantially all pending requests from the buffer, substantially in parallel, with the available handler processes, when a number of pending requests is less than or equal to a number of available handler processes, each pending request accepted independently of an intervening process to dispatch each pending request; and
- service accepted pending requests.

18. (Original) The system of Claim 17, wherein the software is further operable to process error conditions associated with those available handler processes that did not successfully accept a pending request when the number of available handler processes is greater than the number of pending requests.

19. (Original) The system of Claim 17, wherein the software is further operable to create a plurality of the handler processes with a spawner process and wherein the available handler processes comprise a subset of the handler processes.

20. (Original) The system of Claim 19, wherein the software is further operable to update a flag associated with the notification and wherein the flag is accessible by substantially all the handler processes at substantially any time.

21. (Original) The system of Claim 17, wherein the software is further operable to initialize the well-known address.

22. (Currently Amended) A system for a parallel client server system comprising:
means for providing, at a server, at least one available handler process, the available handler process comprising a handler process which is not presently processing a previously accepted pending request;

means for providing a well-known address at the server;

means for storing, at the server, at least one pending request received by the well-known address in a buffer associated with the well-known address;

means for notifying, substantially in parallel, the available handler processes that at least one pending request is in the buffer, an available handler process of the available handler processes operable to compete with one or more other available handler processes for the at least one request;

means for accepting substantially all pending requests from the buffer, substantially in parallel, with the available handler processes, when a number of pending requests is less than or equal to a number of available handler processes, each pending request accepted independently of an intervening process to dispatch each pending request; and

means for servicing accepted pending requests.

23. (Original) The method according to Claim 5 and further comprising:
servicing accepted requests with those handler processes that successfully accepted a pending request; and

processing error conditions with those handler processes that did not successfully accept a pending request.